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08/227,247 04/13/94 VANDERWENDE

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EXAMINER
WEINHARDT, R

ART UNIT PAPER NUMBER

2411

DATE MAILED: 12/07/95

24M1/1207
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This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 4/24/95 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 8 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> |

Part II SUMMARY OF ACTION

1. ☒ Claims 16-45 are pending in the application.
Of the above, claims are withdrawn from consideration.
2. ☒ Claims 1-15 have been cancelled.
3. ☐ Claims are allowed.
4. ☒ Claims 16-43 and 45 are rejected.
5. ☒ Claims 44 are objected to.
6. ☐ Claims are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. ; filed on
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

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1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The title is too generic, which lessens its value as a search tool. The title should reflect what is believed to be distinct about this particular manner of compiling a lexical knowledge base.

2. The drawings are objected to because newly submitted fig. 8 should be labeled "Prior Art". Correction is required.

Applicant is required to submit a proposed drawing correction in response to this Office action. However, correction of the noted defect can be deferred until the application is allowed by the examiner.

3. Claims 16-42 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 16, 20 and 41, "the lexical knowledge base" lacks clear antecedent basis. Note that the preamble calls for a method for "generating a lexical knowledge base" and as no step for generating is found, antecedent basis has not been provided.

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In claim 18, as above, "the lexical knowledge base" lacks clear antecedent basis.

In claims 18 and 36, it is not clear how these steps are integrated into the method of claim 16. It is not clear if the discerned first collection of complex semantic relation structures are related to the extracted structures of step (b) of claim 16 or if the stored information is related to the data stored in claim 16.

In claim 21, "one or more elements" is vague.

Similarly, in claim 30, "more than three elements" is vague.

In claim 33, it is not clear if "a semantic relation structure" is the same as or different from the semantic relation structure recited in claim 30, from which claim 33 depends.

Dependent claims not specifically mentioned above are rejected because by their dependence they include the language of a rejected base claim.

4. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

5. Claims 20-21, 24-43 and 45 are rejected under 35 U.S.C. § 103 as being unpatentable over applicant's admitted prior art in view of the Lenat et al. book, "Building Large Knowledge-Based Systems" as applied in the Office action mailed 1/19/95.

Applicant argues that the prior Office action did not provide a "suggestion in the cited art leading to each of the combinations claimed". However, as clearly mentioned on page 8 of the Office action, Lenat teaches that inversion provides an accessing advantage. Moreover, applicant's requirement that the suggestion be provided in the "cited art" is inaccurate. It is well settled that the prior art may be properly evaluated for reasonable inferences which one skilled in the art would draw therefrom, not just there express teachings. Further, it has been established that the conclusion of obviousness may be made from common knowledge and

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common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference. Thus, even if Lenat lacked a teaching of why inversions were advantageous, these advantages would have been obvious and readily apparent to those of ordinary skill in the art in light of the common knowledge and common sense of those of ordinary skill in the art. Also, while applicant argues that the discussion of advantages is not sufficient rationale, the acknowledgement of advantages by those in the art certainly provides strong incentive and motivation to those in the art to obtain those advantages. As these advantages are explicitly expressed in Lenat, it is not seen where impermissible hindsight is used.

Applicant attempts to characterize Lenat as teaching away from the combination claimed. However, the citation of Lenat used as support for this argument discussed failures in "the early seventies" and indicated that automation would not be shunned when "natural language understanding begins to be a more effective way of further enlarging" the knowledge base. Thus, Lenat is not discarding the automated approach as asserted by applicant. As natural language understanding has certainly advanced since the date of publication of Lenat, Lenat's assumptions concerning the abilities in the art cannot be taken as the last word. With respect to applicant's assertion that Lenat disparaged encyclopedias as knowledge bases, it is not seen where the claims recite the use of encyclopedias.

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6. Claim 44 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 16-19 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112.

Claims 22-23 and 31-32 would be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112 and to include all of the limitations of the base claim and any intervening claims.

7. Applicant's amendment necessitated the new grounds of rejection.

Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

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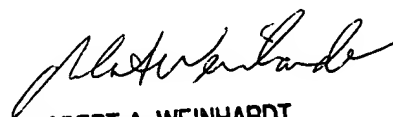
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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Weinhardt whose telephone number is (703) 305-9780. The examiner can normally be reached on Monday-Friday from 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gail Hayes, can be reached on (703) 305-9711. Facsimile transmissions to this Group may be directed to (703) 305-9564 or 9565.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3800.

December 1, 1995


ROBERT A. WEINHARDT
PRIMARY EXAMINER
GROUP 2400